THE FOOD STAMP PROGRAM: ELIGIBILITY AND PARTICIPATION

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SUMMARY

Concerns have been raised that participation in the Food Stamp program is low. This paper investigates the extent of eligibility for and participation in the Food Stamp program in August 1984, the most recent month for which information needed to determine eligibility is available.

The Food Stamp program is the primary federal program to provide food assistance to low-income households. Most households that meet federal income, asset, and work registration requirements are eligible to participate. For example, a household of three people with assets under $2,000 is currently eligible for food stamps as long as its household income is below $1,050 per month, or 130 percent of the federal poverty threshold, and below $808 (or 100 percent of the federal poverty threshold) after deductions.1/ Limitations on participation exist for noncitizens, strikers, college students, and people who have voluntarily quit their jobs.

Food stamp benefits consist of coupons used to purchase food that will be prepared and consumed in the home. The amount of the food stamp allotment depends on the household's size and income and on the current value of the Thrifty Food Plan, a low-cost, nutritionally adequate family food plan designed by the U.S. Department of Agriculture. The value of this food plan is currently $236 for a three-person family for one month (or about $79 per person). Food stamps are meant to cover food costs alone, and households are expected to spend 30 percent of their income on food. Therefore, the household's allotment is reduced from the amount of the Thrifty Food Plan by 30 cents for every dollar of household income after deductions. Because many recipient households have some income, the average monthly benefit per person in 1987 was about $46.2/

In this study, data for estimating eligibility for food stamps are taken from the 1984 Panel of the Survey of Income and Program

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1. The term "federal poverty threshold" refers to the set of official poverty lines established by the Director of the Office of Management and Budget and updated annually by the Secretary of Health and Human Services.

2. Dollar amounts used throughout this paper are current values; they are not adjusted for price changes over time.

Participation (SIPP). Participation is measured using both the SIPP data and data from the Food Stamp Quality Control sample. The best estimate of the percentage of the eligible population that participated in the program may lie between the lower estimate based on the SIPP and the higher estimate that uses both the Quality Control sample and the SIPP. Internal consistencies in the SIPP sample may lead to an underestimate of both the eligible and the participating populations; consequently, the participation rate may be more accurately estimated by using data from the same source (the SIPP) than by mixing data from two sources (the SIPP and the Quality Control sample), although the Quality Control sample contains a more accurate count of participants than the SIPP.

PARTICIPATION IN THE FOOD STAMP PROGRAM, AUGUST 1984

In August 1984, approximately 30.4 million people in 12.7 million households were eligible for food stamps, according to calculations by the Congressional Budget Office (CBO). The SIPP data indicate that 15.6 million of the eligible people in 5.2 million households participated in the program. The Quality Control sample data record 20 million participants in 7.3 million households. Thus, the participation rates for August 1984 were between 51 percent and 66 percent for individuals, and between 41 percent and 58 percent for households (see Summary Table 1). Participation rates for individuals tend to be higher than those for households because a greater proportion of eligible large households participate than do eligible small households.

Particular subgroups of the eligible population participated at different rates. Among groups defined by monthly income levels, participation rates were highest for those with the lowest levels of income--between 60 percent and 85 percent for people with household income under $400 in August--and they declined as income levels rose. Household participation rates followed these patterns, but were lower.

Similarly, eligible people in households with no assets had relatively high participation rates--between 64 percent and 86 percent--while those with higher assets ($1,000 or more) had very low rates of participation--between 13 percent and 22 percent.

These patterns of participation may reflect a perception of greater need on the part of very low-income eligible people, or it may reflect a greater incentive for them to participate because households with lower income are eligible for higher benefits. Generally, participation rates rose steadily as benefit levels increased, ranging from between 24 percent and 32 percent for people eligible for the lowest levels of benefits (less than $10) to between 67 percent and 90 percent for benefits over $100 per month.

SUMMARY TABLE 1. ELIGIBILITY FOR AND PARTICIPATION IN THE FOOD STAMP PROGRAM, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Households	91.2	12.7	14	58	41
Individuals	232.2	30.4	13	66	51

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

a. The eligibility rate represents column two expressed as a percentage of column one.

Finally, certain demographic groups were more likely than others to participate. Eligible households with children had higher-than-average participation rates (between 59 percent and 81 percent), which reflects the fact that many poor children are participating in Aid to Families with Dependent Children (AFDC), and most AFDC families also receive food stamps. In contrast, participation rates for households with elderly members were lower, at 34 percent to 44 percent. Households without children or elderly members had still lower participation rates. These households include nonelderly single individuals and childless couples. Participation rates for this group ranged from 24 percent to 39 percent.

CHAPTER I

INTRODUCTION

The Food Stamp program is the major assistance program in the United States designed to meet the food needs of low-income households. It provides assistance in the form of coupons redeemable for food to households with low levels of income and assets that also comply with work requirements, without imposing further restrictions on age, disability, or other characteristics of recipients. The federal government pays for the full cost of food stamp benefits and half of most state and local administrative costs. The federal cost of the Food Stamp program was $11.6 billion in fiscal year 1987. States paid an additional $1.0 billion in that year for their share of administrative costs.1/

The Food Stamp program developed from a set of pilot projects in 1961 into a program with standardized eligibility and benefit rules in 1971, and was in mandatory nationwide operation by 1975. By 1975, the program served an average of 17.1 million people per month and federal costs totaled $4.6 billion. The Food Stamp Act of 1977 (implemented in 1979) made substantial changes in the program. The act standardized deduction amounts and required that eligible households have net incomes below the poverty threshold.2/ This restricted eligibility, but the law also eliminated the requirement that households use some of their income to purchase more food stamps. Between 1977 and 1980, monthly participation rose from 17.1 million people to 21.1 million people, and federal costs rose from $5.5 billion in 1977 to $9.2 billion in 1980.

Besides responding to legislative changes, participation in the Food Stamp program tends to vary over time with economic factors, especially unemployment and demographic trends. A series of legislative changes between 1980 and 1982 restricted eligibility and reduced benefits in the Food Stamp program. At the same time,

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1. Dollar amounts used throughout this paper are current values; they are not adjusted for price changes over time. The figure for federal costs excludes the cost of a block grant to Puerto Rico for nutrition assistance. Figures for federal and state costs in fiscal year 1988 are not yet available.

2. The term "federal poverty threshold" refers to the set of official poverty lines established by the Director of the Office of Management and Budget and updated annually by the Secretary of Health and Human Services.

the unemployment rate for all civilian workers rose from 5.8 percent in 1979 to 9.7 percent in 1982. These trends worked against one another, the result being that Food Stamp program participation rose from 21.1 million people per month in 1980 to 21.7 million people per month in 1982. Finally, unemployment declined to 6.2 percent in 1987, and the Food Security Act of 1985 eased some of the limitations on eligibility and benefits introduced in the early 1980s. Participation in 1987 was 19.1 million people in an average month, and federal costs were $11.6 billion.

Food stamp benefits are based on the cost of purchasing the Thrifty Food Plan, designed by the U.S. Department of Agriculture as the least costly diet that is nutritionally adequate. In 1987, an average of 19.1 million people in 7.1 million households participated each month in the Food Stamp program, and they received an average of $46 in benefits per person each month.

Income limits on eligibility for the Food Stamp program are set at 130 percent of the poverty threshold for total income, and 100 percent of the poverty threshold for income after deductions.3/ This currently corresponds, for a family of three, to a limit on total income of $1,050 per month ($12,600 per year), and a limit on income after deductions of $808 per month. In addition, the family must have countable assets below the limit of $2,000 (or $3,000 if the household has an elderly member). Because these criteria are generally fixed regardless of place of residence, a family meeting these income and asset cutoffs living in relatively low-cost areas of the country may not consider itself poor or in need of assistance, and may not, therefore, choose to participate. A similar family living in a major urban area, however, might find it difficult to meet expenses even if its income were somewhat above these eligibility limits, and thus may be more likely to participate.

Households in which all members are participating in the Aid to Families with Dependent Children (AFDC) program and the Supplemental Security Income (SSI) program are now automatically eligible for food stamps as well, because they have met the income and asset tests for those programs. In addition, households with low-wage earners are also eligible by the income criteria (though they must also pass the asset test). For example, a single individual earning the minimum wage of $3.35 per hour at a full-time job would earn about $580 per month--just under the gross income limit (130 percent of the poverty threshold) for a nonelderly person living alone. If a larger household has a single full-time earner, the wage could be considerably higher than the minimum and that household's income would still be low enough to make the household eligible for food stamps. At a full-time job, earnings of $12,600,

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3. Households with elderly or disabled members do not have to meet the total income test.

the limit on total income for a family of three, is consistent with an hourly wage of over $6.00.

Not all eligible people participate in the Food Stamp program. This paper presents estimates of the size of the population eligible for food stamps, its characteristics, and the implied participation rates of various groups. The estimates of eligibility are based on data from the Survey of Income and Program Participation (SIPP), which contains most of the information needed to determine eligibility, including monthly incomes, asset values, and the amounts of certain expenses that are deductible from income. Two estimates of participation are presented based on the SIPP data and on data from the Food Stamp Quality Control sample.

CHAPTER II

ELIGIBILITY AND BENEFITS

Eligibility for the Food Stamp program depends primarily on a household's size, monthly income, and the value of liquid assets it owns at the time of application. Food stamp benefits are computed separately based on income and maximum food stamp benefit levels, which vary by household size.

In this study, the data used to estimate the number of eligible households are from August 1984, when conditions for eligibility were more stringent than they are now. The simulation uses data from August 1984 because supplementary information needed to determine eligibility for food stamps--such as the value of assets, shelter costs, and child care costs--were only available very close to that month in the Survey of Income and Program Participation, while data on participants from the Food Stamp Quality Control sample are available for August of each year.

Changes in eligibility criteria for the Food Stamp program have been enacted since August 1984. These changes have tended to expand eligibility, although a recent study estimates that the effect of these liberalizations on the size of the eligible population was small.1/ Further changes to the food stamp law by the Hunger Prevention Act of 1988 increased benefits gradually each year to 103 percent of the Thrifty Food Plan in fiscal year 1991 and after.

ELIGIBILITY CRITERIA

To be eligible for food stamps, a family must have income and liquid assets below specified levels and must comply with work registration requirements and with any job search requirements imposed by the state. Households in which all members receive Aid to Families with Dependent Children or Supplemental Security Income are automatically

1. For details, see The Urban Institute, "Impacts of Categorical Food Stamp Program Eligibility for Households Composed Solely of AFDC and SSI Recipients" (paper prepared for the Food and Nutrition Service of the U.S. Department of Agriculture, December 1987).

eligible for food stamps, as long as they meet food stamp work registration requirements and certain other food stamp rules.2/

The Food Stamp Household

Low-income individuals who live alone and those who live, purchase food, and prepare meals together constitute food stamp households.3/ The food stamp household must apply for food stamps together, and the income and assets of each member are counted to determine eligibility. In general, the law requires that parents, children and siblings who live together be designated as a food stamp household. Otherwise, individuals who live together may apply separately if they purchase and prepare meals separately. Exceptions to the rule that relatives apply together are made for elderly and disabled individuals and parents of minor children (and their children).4/

In August, 1984, the household definition did not allow parents of minor children to apply separately from other relatives who were living in the household.

Income Limits

To be eligible for the Food Stamp program, a food stamp household must have monthly income below specified levels. Both gross and net (or "countable") income concepts are considered. Gross income includes all cash income except for energy assistance, income earned by schoolchildren, the portion of student aid used for tuition and

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2. In August 1984, households in which all members received AFDC or SSI were not automatically eligible for food stamps. Households in which all members received AFDC, however, were not subject to the asset test on the assumption that they had met a similar test in the AFDC program.

3. The food stamp household, therefore, does not necessarily include everyone who lives together. The Census household, by contrast, includes everyone who shares a residence.

4. In the Food Stamp program, "elderly" is defined as aged 60 or older. A disabled person is one who receives disability payments under either the Social Security or the Supplemental Security Income program.

mandatory fees, and certain other income sources.5/ Net income is gross income minus certain deductions. These deductions include:

- A standard deduction for all households equal to $106;6/
- An earned income deduction equal to 20 percent of earnings;
- Expenses for the care of a dependent of someone working or participating in training that would lead to employment, up to a ceiling of $160 for each dependent each month;
- Out-of-pocket medical expenses exceeding $35 per month for elderly or disabled household members; and
- Shelter expenses that exceed 50 percent of income remaining after all other potential deductions. This deduction is unlimited for households with elderly or disabled members, but for other households, the deduction is capped at $170 per household per month.

A household without an elderly or disabled member must have gross income below 130 percent of the federal poverty threshold and net income below 100 percent of the threshold (see Table 1).7/ A household with an elderly or disabled member must have net income below 100 percent of the poverty threshold, but it does not face the gross income test. The poverty threshold for a family of four for a month is currently $971. (It was $850 per month for a family of four in August 1984.)

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5. These income sources include certain payments made to third parties (rather than directly to the household); small amounts of income not received regularly; loans; income received for the care of someone not in the food stamp household; nonrecurring lump-sum payments, such as income tax refunds (counted as assets); child support payments to AFDC recipients up to $50 per month (at state option); and certain other income that must be disregarded according to other federal laws.

6. The standard deduction is higher for Alaska, Hawaii, and Guam, and lower for the Virgin Islands. It is increased each October for inflation.

7. The federal poverty thresholds are adjusted annually for inflation by the change in the Consumer Price Index. Beginning in October 1988, new thresholds for use in the Food Stamp program will be adopted in October of each year. New thresholds were previously adopted each July.

TABLE 1. MONTHLY POVERTY THRESHOLD AND FOOD STAMP BENEFITS, FISCAL YEAR 1989 (In dollars)

Household Size (Number of People)	Poverty Threshold (Net Income Cutoff)	Maximum Food Stamp Benefit	Minimum Food Stamp Benefit
One	481	90	10
Two	645	165	10
Three	808	236	0
Four	971	300	9
Five	1,135	356	15
Six	1,298	427	37
Seven	1,461	472	34
Eight	1,625	540	52
Each Additional Person	+164	+68	n.a.

SOURCE: Food and Nutrition Service, U. S. Department of Agriculture, and CBO calculations.

NOTES: n.a. = not available.

Poverty thresholds are updated annually for inflation. In Alaska and Hawaii, the poverty thresholds are higher by 25 percent and 15 percent, respectively. Food stamp benefits are adjusted annually to reflect the cost of the Thrifty Food Plan. They are also higher by 30 percent to 50 percent in Alaska and 53 percent in Hawaii.

The maximum food stamp benefit is paid if countable income is negative or zero. For every dollar of countable income, the food stamp benefit is reduced from the maximum amount by 30 cents. The minimum food stamp benefit is calculated for a household with countable income of $1 below the poverty threshold. Eligible households of one or two people are guaranteed a minimum benefit of at least $10.

In August 1984, the income deductions were lower. The earned income deduction was 18 percent rather than 20 percent of earnings. Instead of having separate ceilings or a deduction for each dependent, the deductions for dependent care and shelter costs had a combined ceiling of $125 per household per month for households with nonelderly and nondisabled members. For households with elderly or disabled members, the deduction for dependent care expenses was capped at $125 per household per month, but the shelter cost deduction was unlimited.

Asset Limits

Households eligible for the Food Stamp program must also have liquid assets below specified levels. These levels are currently $3,000 for households with elderly members, and $2,000 for all other households.

Liquid assets include cash, checking accounts, savings accounts, stocks and bonds, and other financial assets. In addition, the value of some nonliquid assets are counted, including vacation homes, recreational vehicles, and a portion of the value of some vehicles that are not used primarily to produce income.8/ Excluded from the asset limit is the value of a residence, business assets, household belongings, and certain other resources.

In August 1984, the asset limits were lower for most households. These thresholds were set at $3,000 for households of two or more people with an elderly member, and $1,500 for all other households (including households with one elderly person and no other members).

Work Registration Requirements

Unless exempt, able-bodied individuals receiving food stamps must be willing to register for employment, and accept suitable employment if it is offered.9/ They may also be required to fulfill

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8. The amount counted toward the asset test is the amount by which the fair market value of each vehicle exceeds $4,500. Thus, if a vehicle has a fair market value of $4,000, it is not counted toward the asset test.

9. The following groups are exempt from work registration: elderly people aged 60 or over, children under the age of 16 and those between 16 and 18 if they are not the head of a household or are attending school or a training program, caretakers of an incapacitated person or a child under the age of six, those working at least 30 hours (or the minimum-wage equivalent), people registered for work under another program (the Aid to Families with Dependent Children Work Incentive program or recipients of Unemployment Insurance), postsecondary

employment-related requirements imposed by the individual states, which can include job search, training, or workfare programs. If the head of the household refuses to comply, the entire household is declared ineligible for food stamps for two months. If someone other than the family head does not comply, the family's allotment is reduced by that person's share for two months.

The number of households removed from the program for noncompliance with work requirements tends to be small relative to the total number of participants, in part because the proportion of food stamp households with a work registrant in any month tends to be small--for example, 16 percent in August 1984. In the first two quarters of fiscal year 1988, about 121,000 households were denied full or partial benefits or sent notices that their benefits were about to be reduced or curtailed. (Some of those who received notices may have been able to become reinstated without losing benefits.)

In August 1984, the entire household would be removed from the program for two months if any household member who was required to register for work refused to comply. During fiscal year 1984, only 105,000 households were removed from the program for noncompliance with work requirements.

Categorical Ineligibility

Even when the income and asset limits are not exceeded, certain groups of individuals are automatically ("categorically") ineligible for the program. They include strikers, unless they were eligible before the strike, people who voluntarily quit their jobs, most postsecondary (college) students, illegal or temporary resident aliens, and those living in most institutional settings. Recipients of SSI benefits in California and Wisconsin receive an allotment for food through those benefits, and so are ineligible for food stamp vouchers.

CALCULATION OF BENEFITS

Food stamp benefits depend on the household's size and income, and on the value of the Thrifty Food Plan. The Hunger Prevention Act of 1988 set benefit levels at 100.65 percent of the Thrifty Food Plan for fiscal year 1989, 102.05 percent of the Thrifty Food Plan in fiscal year 1990, and 103 percent of the Thrifty Food Plan in fiscal year 1991. The maximum monthly benefit is $300 for a four-person family beginning in October 1988 (see Table 1).

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students enrolled at least half time, and residents of alcoholic treatment or drug addiction programs.

The Thrifty Food Plan was designed by the Department of Agriculture as a nutritionally adequate, low-cost diet for a four-person family. Menus are designed to include foods that meet, for a family of four, the Recommended Dietary Allowances calculated by the National Research Council of the National Academy of Sciences. The menus are based on nationwide food consumption patterns, but substitutions and modifications are made in the types and quantities of particular foods in order to meet cost constraints. The value of the plan, and thus the maximum food stamp allotment, is based on average prices for foods used in the plan's menus. Larger and smaller households receive different allotments that adjust the Thrifty Food Plan by percentages based on the number of people to reflect an assumption that there are economies of scale in purchasing and preparing food for additional household members.

Finally, benefit levels are also adjusted for the household's income. It is assumed that low-income households spend about 30 percent of their incomes on food, and therefore benefits are reduced by 30 cents for every dollar of the household's net income (24 cents for every dollar of earned income because of the deduction for work expenses). Households with net incomes close to the eligibility cutoff may have calculated benefits below $10 per month, but a special minimum benefit of $10 is available to one- and two-person households. In the summer of 1986, about 70 percent of the households that qualified for the minimum benefit contained an elderly person.

In August 1984, maximum food stamp allotments were 99 percent of the Thrifty Food Plan. Therefore, in that month, a four-person family with no income would receive $253, rather than the Thrifty Food Plan amount of $256.

CHAPTER III

ELIGIBILITY AND PARTICIPATION IN AUGUST 1984

An estimated 30.4 million people in 12.7 million households were eligible for food stamps in August 1984. Over three-quarters of the estimated eligible households had total income below the poverty threshold, before any deductions. About 96 percent had incomes below 125 percent of the poverty threshold. In the same month, Quality Control sample (administrative) data from the Food Stamp program indicate that 20 million people in 7.3 million households received benefits from the program. Data from the Survey of Income and Program Participation, however, indicate that there were 15.6 million eligible recipients in 5.2 million households in August 1984. Thus, participation rates were between 41 percent and 58 percent for households, and between 51 percent and 66 percent for individuals, depending on the source of data used to estimate the number of participants (see Table 2).1/

Estimates of individuals and households eligible for food stamps are based on data from the SIPP for the month of August 1984. Most information needed to determine eligibility is available in the SIPP, which contains information about monthly incomes, asset values, and the amounts of certain expenses that are deductible from income. The SIPP data do not contain all the information a caseworker in the Food Stamp program would need to determine eligibility, however, so the estimate of the number of eligible households can vary depending on the assumptions used to adjust for missing information.2/ The most important piece of missing information is the composition of the food stamp household--those members purchasing and preparing food together.

In this study, the Congressional Budget Office measured participation using both data on the number and characteristics of recipients from the Food Stamp Quality Control sample and data from the SIPP, in which people report receipt of food stamps.3/ The best estimate of the food stamp participation rate may lie between these

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1. Participation rates are higher for individuals than for households because a higher proportion of eligible large households participate than do eligible small households.

2. Appendix A contains details of the estimation procedure used by the Congressional Budget Office.

3. Appendix B discusses factors that can lead to different estimates of participation rates.

TABLE 2. ELIGIBILITY FOR AND PARTICIPATION IN THE FOOD STAMP PROGRAM, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Households	91.2	12.7	14	58	41
Individuals	232.2	30.4	13	66	51

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

a. The eligibility rate represents column two expressed as a percentage of column one.

two estimates. Internal consistencies in the SIPP sample may lead to an underestimate of both the eligible and the participating populations; consequently, the participation rate may be more accurately estimated by using data from the same source (the SIPP) than by mixing data from two sources (the SIPP and the Quality Control sample), although the Quality Control sample contains a more accurate count of participants than the SIPP.

DATA FROM THE SURVEY OF INCOME AND PROGRAM PARTICIPATION

The SIPP is a survey measuring monthly income, labor force participation, and demographic characteristics of adults over a period of two and one-half years. The data also contain supplementary information on the value of assets, schooling and training, work history, and other topics.

The SIPP, therefore, provides particularly good information for determining eligibility for the Food Stamp program. It indicates monthly household composition and monthly income by source for each household member. Each household was asked about the values of any liquid assets and vehicles that it owned. In addition, the data include information on certain deductible expenses, including child care and shelter costs.

There are some limitations to determining food stamp eligibility using the SIPP, however. The delineation of households in the SIPP does not precisely correspond to that used in the Food Stamp program. Also, income and assets are underreported in the SIPP, and the extent of bias from this is unknown. Some people do not report the amount of income they received, and the procedure used in the SIPP to impute amounts for missing data on income does not take into account other reported amounts of income. Therefore, imputed income data can be inconsistent with other reported income data, and in particular, people with low incomes can have relatively high amounts imputed for missing sources. Out-of-pocket medical expenses are not reported in the data, so information about health insurance and the frequency of doctor visits was used to impute this deduction from total income. Finally, some groups--including strikers, illegal aliens, and people refusing to comply with work registration--are automatically ineligible for food stamps but cannot be identified in the SIPP.

The month of August 1984 was chosen for the CBO simulation because it is close to the time that SIPP respondents were asked supplementary questions about assets, housing costs, and child care costs. The supplementary topics are covered only once or twice during the two and one-half years of the SIPP survey, but the information is needed to determine eligibility for food stamps. Since the values of these items may change, it is preferable to calculate eligibility in a month that is as close as possible to the time that the items were measured. In addition, August 1984 is a

month for which Quality Control sample data for the Food Stamp program are available. Thus, SIPP estimates of the eligible and recipient populations can be compared with information on recipients from the Quality Control sample.

As noted in Chapter II, the law defining eligibility for food stamps was somewhat different in August 1984 than it is now, because subsequent legislation modified the household definition, increased the earned income deduction, increased the caps on the shelter and dependent care deductions, and raised the asset limits for single-person elderly households and for households without elderly members. At this time, however, it is not possible to analyze participation in the Food Stamp program under current law, because the provisions altering eligibility did not take effect until May 1986 or later, while March 1986 is the last month for which there is information on the full SIPP sample.4/

Definition of the Food Stamp Household

The SIPP does not contain information about who purchases food and prepares meals together, and for this reason, the composition of the food stamp unit is not always clear. The SIPP data are based on the Census household, which includes all individuals who live together. Not all of these people are required to apply for food stamps together. Some related people may apply separately, two different families that share living quarters may apply separately, and unrelated individuals may also apply as separate food stamp households.

One can see the extent to which the composition of the food stamp household differs from the Census household definition by examining actual food stamp recipients in the SIPP. In about 70 percent of the Census households with food stamp recipients, the allotment is received together, everyone is related, and no one is excluded from the food stamp household. Thus, in 30 percent of the cases, the household composition is ambiguous because of multiple food stamp households, excluded persons, nonrelatives in the food stamp household, or conflicting information from household members about the composition of the food stamp household.

The absence of information about the composition of the food stamp household is the most serious limitation of the SIPP for estimating food stamp eligibility, because estimates of participation rates are very sensitive to the definition of the food

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4. A recent study indicates that the impact of these changes on the size of the eligible population was small. See the Urban Institute, "Impacts of Categorical Food Stamp Program Eligibility for Households Composed Solely of AFDC and SSI Recipients" (paper prepared for the Food and Nutrition Service of the U.S. Department of Agriculture, December 1987).

stamp household. In general, participation rates for households are more sensitive to the household definition than are participation rates for individuals.

In the CBO estimates, unrelated individuals were put into separate food stamp households from the rest of the Census household. This is an intermediate assumption that falls between breaking up Census households into food stamp households to the maximum extent allowed by law (by assuming that individuals purchase and prepare meals separately unless they are related as parents, siblings, or children), and putting everyone in the Census household into the same food stamp household. Analysis of the SIPP indicates that in August 1984 only about 30 percent of the unrelated individuals in Census households with food stamp recipients received a food stamp allotment with the rest of the household.

Had the estimates of eligibility been based instead on the assumption that each person in the Census household belonged to the same food stamp unit, estimated participation rates would be higher, in part because there would be fewer eligible households. Under the alternative assumption that the Census household applies as one food stamp household, the participation rate of eligible households, based on the Quality Control sample, would have been eight percentage points higher than the 58 percent participation rate reported above. Because this difference results from placing members of the same household into one food stamp unit rather than into two or more, the assumption has a much smaller effect on the estimated percentage of eligible people participating in the program--69 percent compared with 66 percent.

Using the Census household as the food stamp household would clearly be an unrealistic assumption, because unrelated individuals and families, as well as some related people, can and sometimes do apply separately. Moreover, a comparison of food stamp recipient households in the SIPP and the Quality Control sample indicates that the food stamp household definition used in this analysis conforms more closely than the Census definition to the household compositions found in the Quality Control sample, although it still does not go far enough in breaking Census households into food stamp households. Under the assumption that puts unrelated individuals in a household into separate food stamp units, there are fewer one-person households and more households of three or more individuals relative to those reported in the Quality Control sample. Consistent with this finding, the SIPP households have higher income and assets and lower estimated food stamp benefits than those in the Quality Control sample. Under the Census household definition, these inconsistencies are greater.

Alternative Estimates of Participation Rates

Participation rates calculated by CBO use both the Quality Control sample and the SIPP data for the number of food stamp recipients,

because there are no compelling reasons to prefer one over the other. The Quality Control sample contains the most reliable number of participants, since it is adjusted to reflect the known number of recipients in August 1984. In contrast, the SIPP finds just over three-quarters of the number of eligible recipients identified in the Quality Control sample, a significant underestimate of participation. To the extent that food stamp recipiency is underreported, the number of participants in the SIPP will be underestimated and therefore the SIPP-based participation rate will be too low. Nevertheless, internal consistencies in the SIPP sample might lead to an underestimate of the eligible population. To the extent that the number of participants and eligible people are similarly underestimated, the participation rates based on such consistently imperfect data could be a more accurate measure of the actual participation rate than would be obtained by combining recipients from the Quality Control sample with eligible persons from the SIPP.

The number of eligible people in the SIPP could be underestimated for several reasons. For example, what appear to be too few food stamp recipients in the SIPP might instead reflect a general underrepresentation of low-income households. As a result, although the numbers of both eligible and participating persons are underestimated, the participation rate could be accurate. The extent to which the low-income population is underrepresented in the SIPP is not known, however.5/

Similarly, some recipients appear to be ineligible for reasons that could also bias the number of all eligible people downward. For example, imputations made in the SIPP for income amounts not reported by individuals in the sample do not depend on other income amounts, and so for low-income persons, they can be too high. As a result, some eligible households may appear to be ineligible. Finally, eligibility is very sensitive to the household definition, and so assumptions about household composition used in the simulation contribute to finding ineligible recipients. Under the household definition used in the CBO simulation, the SIPP indicates that there were 19.5 million people in households that received food stamps in August 1984. This is higher than the number of directly reported recipients in the SIPP for that month, because the simulated food stamp household is in some cases larger than the actual reported food stamp household. The extra members may add income or assets that make the entire household appear ineligible.

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5. An offsetting factor relates to the underreporting of several types of income, which lends an upward bias to the SIPP-based count of eligible people.

ESTIMATES OF ELIGIBLE AND PARTICIPATING HOUSEHOLDS AND PERSONS

While between one-half and two-thirds of all people eligible for food stamps in August 1984 participated, particular groups participated in greater or smaller proportions depending on their incomes, expected benefit levels, and demographic characteristics. Generally, participation rates decline as income and assets rise, and increase as benefits increase. Participation rates for eligible elderly persons are lower than for eligible nonelderly persons. Eligible nonelderly women are more likely to participate than similar men.

Income, Asset, and Benefit Levels

Because eligibility for the Food Stamp program depends on income relative to household size as well as on the value of assets, the proportion of households eligible for food stamps is highest among households with little or no income or assets, and the proportion of eligible households generally declines as income and assets rise. Participation rates are also inversely related to income and assets. These relationships may be driven in part by the benefits expected by eligible people, as participation rates rise steadily with increases in the amount of a household's benefit.

Income. Most people with low incomes are eligible for food stamps. Those that were estimated to be ineligible tended to have assets (including part of the value of vehicles) above allowable limits of $2,000 for households with an elderly person and two or more people, and $1,500 for all other households. Among those with a very low monthly income ($1 to $399), 25 percent were ineligible primarily because they had assets above the limits (see Tables 3 and 4).

Participation rates in general fall as income rises. Using the Quality Control sample, participation rates fell from 72 percent for households with monthly income under $400 to 34 percent for eligible households with monthly income above $800. Using SIPP data for recipients, participation rates fell from 49 percent for households with monthly income under $400 to 34 percent for eligible households with monthly income above $800. Participation rates for eligible persons by household income followed a similar pattern, but were somewhat higher.

A measure of income that is adjusted for household size is monthly household income divided by the single-month poverty threshold used to determine eligibility for food stamps. This measure also indicates that participation declines as income rises, from between 62 percent and 86 percent for households with income below one-half of the poverty threshold, to between 19 percent and 20 percent for eligible households with income above the poverty threshold. The pattern of participation rates for individuals in these households was similar, but the rates were somewhat higher.

TABLE 3. HOUSEHOLDS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY THE INCOME AND ASSETS OF HOUSEHOLDS, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Total Monthly Income (Dollars) b/					
1-399	7.3	5.5	75	72	49
400-799	11.2	4.5	40	53	42
800 or more	71.1	1.4	2	34	34
Monthly Income as a Percentage of the Poverty Threshold b/					
1-49	3.6	2.7	73	86	62
50-74	2.8	2.2	79	85	56
75-99	4.7	3.6	75	59	44
100 or more	78.3	2.8	4	19	20
Assets (Dollars)					
0	11.6	7.5	65	74	52
1-999	14.0	4.1	30	37	28
1,000 or more	65.7	1.0	2	13	15

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTES: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

Total income includes all cash income for the household except Low Income Home Energy Assistance, the earnings of any child who is under the age of 18, and Job Training Partnership Act training allowances. Assets include the value of all liquid and some nonliquid assets, excluding the value of the household's residence, but including a portion of the value of vehicles.

a. The eligibility rate represents column two expressed as a percentage of column one.

b. Participation rates for households with zero or negative income are omitted because the category mixes households that are actually destitute with those that may have reporting errors, may be temporarily poor but have substantial assets, or may be self-employed and have relatively high amounts of income offset by business losses.

TABLE 4. INDIVIDUALS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY THE INCOME AND ASSETS OF HOUSEHOLDS, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Total Monthly Income (Dollars) b/					
1-399	13.0	9.9	76	85	60
400-799	21.0	11.6	55	72	56
800 or more	197.0	7.1	4	37	39
Monthly Income as a Percentage of the Poverty Threshold b/					
1-49	10.0	7.7	77	97	72
50-74	8.1	6.7	83	87	67
75-99	9.8	7.4	75	65	49
100 or more	201.5	6.6	3	20	24
Assets (Dollars)					
0	27.0	18.3	68	86	64
1-999	33.1	9.9	30	42	35
1,000 or more	173.4	2.3	1	13	22

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTES: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

Total income includes all cash income for the household except Low Income Home Energy Assistance, the earnings of any child who is under the age of 18, and Job Training Partnership Act training allowances. Assets include the value of all liquid and some nonliquid assets, excluding the value of the household's residence, but including a portion of the value of vehicles.

a. The eligibility rate represents column two expressed as a percentage of column one.

b. Participation rates for households with zero or negative income are omitted because the category mixes households that are actually destitute with those that may have reporting errors, may be temporarily poor but have substantial assets, or may be self-employed and have relatively high amounts of income offset by business losses.

Assets. Households with no countable assets (which include both liquid assets and a portion of the value of vehicles) were very likely to be eligible for food stamps, and one-half to three-quarters of these eligible households participated (see Tables 3 and 4). For assets above zero but below $1,000, only about 4 million of the 14 million households were eligible. The participation rate for households with assets in this range was low, at between 28 percent and 37 percent. Very few eligible households with assets above $1,000 participated. Participation rates for individuals echoed these patterns.

Benefits. A household's food stamp benefit depends on its net income, the number of household members, and the maximum value of the Thrifty Food Plan. For example, the food stamp benefit for an eligible single person with no income in August 1984 was $76. For an eligible two-person household with no income, the food stamp benefit was less than twice that amount, at $139. Participation in the Food Stamp program increases with higher benefits for two reasons (see Tables 5 and 6). First, when benefits are $76 and above, some of the eligible people have extremely low income or very large households and low income, and therefore may have a great need for the food stamp benefit. Second, as expected benefits rise, more households would perceive that the expected benefits exceed the costs of applying for and receiving them. These costs can include transportation to the food stamp office, the time and effort needed to apply for the program, and the stigma people may experience when applying for or using food stamps.

Households eligible for lower benefits tend not to participate. Participation rates for benefits of $10 and below ranged from 23 percent to 28 percent for households, and between 23 percent and 32 percent for individuals in August 1984. Participation rates increased with benefit levels, rising to between 66 percent and 91 percent for households eligible for a monthly benefit of $100 or more (between 67 percent and 90 percent for individuals in such households).

Demographic Characteristics

Households with children are more likely than other households to be eligible for food stamps and, if eligible, are much more likely to participate. Sixteen percent of households containing children under the age of 18 were eligible, and between 59 percent and 81 percent of these households received food stamps (see Table 7). The high eligibility and participation rates in these households is reflected in the rates for the children themselves (see Table 8). The high participation rates result in large part from the fact that many poor children receive AFDC and are therefore likely to receive food stamps as well.

Households containing one or more elderly members are less likely to participate in the program than the average household.

TABLE 5. HOUSEHOLDS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY MONTHLY BENEFIT AMOUNT, AUGUST 1984

Monthly Benefit (Dollars)	Households (Millions)	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
0-9	0.1	27	23
10	2.9	24	28
11-49	2.1	44	33
50-99	3.6	58	31
100 or more	3.9	91	66

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

TABLE 6. INDIVIDUALS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY MONTHLY BENEFIT AMOUNT, AUGUST 1984

Monthly Benefit (Dollars)	Individuals (Millions)	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
0-9	0.4	32	24
10	3.4	23	29
11-49	4.1	36	33
50-99	6.8	56	39
100 or more	15.6	90	67

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

TABLE 7. HOUSEHOLDS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLDS, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Households With Children	33.7	5.5	16	81	59
Households With Elderly Member	26.4	3.7	14	44	34
All Other Households	32.8	3.7	11	39	24
All Households	91.2	12.7	14	58	41

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

a. The eligibility rate represents column two expressed as a percentage of column one.

TABLE 8. INDIVIDUALS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM, BY DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLDS, AUGUST 1984

	All (Millions)	Eligible (Millions)	Eligibility Rate (Percents) a/	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Children Under Age 18	66.1	13.0	20	77	62
Men Aged 18-59	63.2	5.0	8	53	39
Women Aged 18-59	66.0	8.1	12	68	51
Elderly Men and Women	36.9	4.3	12	39	35
All Persons	232.2	30.4	13	66	51

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample.

NOTE: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

a. The eligibility rate represents column two expressed as a percentage of column one.

Only 34 percent to 44 percent of the eligible households containing one or more people aged 60 or older received food stamps. Likewise, the participation rates of eligible elderly men and women were below average, at 35 percent and 39 percent, respectively.

The remaining group of households includes nonelderly single individuals and childless couples. They were less likely to be eligible than were households with elderly members or children, and those who were eligible were also less likely to participate. Participation rates for this group ranged from 24 percent to 39 percent.

APPENDIX A

ESTIMATING ELIGIBILITY

No current data contain all the information that would be needed to replicate a caseworker's decision about whether a household is eligible for food stamps. Nevertheless, the Survey of Income and Program Participation (SIPP) has more information than any competing survey data. In addition to information on family relationships, individual demographic characteristics, and incomes by source, it contains monthly income amounts, the value of liquid and many nonliquid assets, child care expenses, and shelter expenses.

The data still fall short of the ideal, however. This appendix describes the types of information that would be needed to obtain a perfect measure of eligibility for the Food Stamp program in August 1984. For each type, the discussion addresses the information available in the SIPP, the extent to which required information is missing or inaccurate, and the adjustments that were made in the Congressional Budget Office simulation to correct for missing or inadequate information.

DEFINING THE FOOD STAMP HOUSEHOLD

The food stamp household contains all individuals who live together and who purchase and prepare meals together. In 1984, the law also required that parents, children, and siblings who lived together applied together, unless one of the parents or siblings was elderly or disabled.1/ Elderly or disabled individuals can apply separately if they can establish that their meals are purchased or prepared separately from the rest of the family.

Income surveys like the SIPP generally are not based on the food stamp household, but instead are based on the group of people who are living together, called the Census household. The Census household may be composed of more than one food stamp household if groups of individuals within it purchase and prepare meals separately. Therefore, to replicate a caseworker's decisions on eligibility, the data must show which individuals in the Census household usually purchase and prepare meals together, and which individuals are related as parents, children, or siblings.

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1. Current law allows parents of minor children (and their children) to apply separately from other relatives who may also live in the household.

Only some of the information needed to identify the food stamp household is available in the SIPP. Household units in the SIPP correspond to Census households, but if any individuals in the Census household receive food stamps together, that group is also identified. Otherwise, there is no information about which family members purchase and prepare meals together. Therefore, unless a group within the Census household receives food stamps, there is no information about how to subdivide a household for purposes of the Food Stamp program. Based on the food stamp law, unrelated individuals, separate families, and elderly household members may apply separately for food stamps, but it is not clear what proportion of these groups would choose to do so.

It is important to define the food stamp household correctly, because whether a household is eligible can depend on who is included. Since food stamp households are income-sharing units, some members may have income and others may not. An extra member with some earned income may add more to the household's total resources than to the program-defined "needs" that determine eligibility for that household size. For example, a household of four had a monthly poverty threshold of $825 in 1984, which was $140 lower than the threshold for a family of five.2/ An additional person earning $300 per month would therefore add more to the resources of a family of four than to its standard of need. Since the poverty line for a single person was $405, the individual would probably be eligible for food stamps if the application were for a one-person food unit, but might make himself or herself and the larger unit ineligible if they were combined. Combining them would be appropriate if they were related, but if they were unrelated and living together, it would be appropriate to combine them only if they shared meal preparation and consumption.

A look at food stamp recipient units reported in the SIPP suggests that unrelated household members and elderly individuals do sometimes apply separately. About one-third of the unrelated individuals, the same proportion of the secondary families, and one-half of the elderly individuals and couples apply for food stamps with other members of their larger households. The remaining two-thirds of the unrelated individuals and secondary families and one-half of the elderly either apply for separate food stamp allotments or are not members of the larger food stamp unit.

Because the SIPP lacks information on how members of the household share food expenses, the decision about how to define households is arbitrary and complex. A simple rule that would keep all members of the Census household together would be correct most of the time, because about three-quarters of the food stamp

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2. To be eligible for food stamps, a household's income after deductions must be below the poverty line for its household size.

households contain all members of the Census household, whether they are related or not. It is possible to improve on this definition, however. The SIPP contains almost 5 million unrelated individuals, and the analysis of food stamp recipient units indicates that unrelated individuals form separate units about 65 percent of the time.

In this study, therefore, the food stamp household is defined as all people in the Census household except unrelated individuals, who are put into separate households. Although secondary families also form separate food stamp households in two-thirds of the cases, they were not put into separate units here because there are very few of them (450,000), and because it is difficult to evaluate a Census household as two separate families.3/ The elderly were not put into separate food stamp units because elderly household members receive food stamps separately only half the time, indicating no clear bias.

The participation rate for persons is not as sensitive to the definition of the food stamp household as is the participation rate for households. This is because a change in the household definition always changes the number of eligible households, but does not always change the number of eligible persons. Splitting up Census households that should not be divided may make one or both groups appear to be eligible when in fact all members of the household considered together are not eligible. In this case, the simulation can overstate the number of both eligible individuals and households. If the entire household could be eligible regardless of how it were broken into food stamp units, however, the number of eligible persons would be unaffected by the household definition, but the number of eligible households could be understated if the household is considered as a single unit.

To test how sensitive participation rates are to the household definition, the definition used in this study was compared with an alternative that defined the food stamp household as the entire Census household. In this case, none of the unrelated individuals, secondary families, or related members is assumed to apply separately. Under this definition, 11.1 million households were estimated to be eligible, for a household participation rate of 66 percent, using the Food Stamp Quality Control sample to estimate

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3. These problems include a lack of sample weights for families (weights exist for individuals and households), and a lack of information about how resources and expenses are shared among two separate families who live together.

the number of participants (see Table A-1).4/ Also under this definition, 29.1 million people were estimated to be eligible, showing a participation rate for individuals of 69 percent. Under the food stamp household definition in CBO's analysis, where unrelated individuals are put in separate food stamp units, but a primary and a secondary family are in the same unit, the number of eligible households is 12.7 million, and the household participation rate is 58 percent. CBO's definition of the food stamp unit suggests that 30.4 million individuals are eligible, and their participation rate is 66 percent.

The participation rates for people under these two definitions are thus very close to each other (69 percent and 66 percent). There is a greater spread between the household participation rates (66 percent versus 58 percent), but most of the qualitative conclusions of the analysis hold up under both assumptions.5/ Nevertheless, the estimate of 66 percent for household participation is based on an extreme assumption that clearly produces too few eligible households.

A comparison of food stamp recipient households in the SIPP and the Quality Control sample under the household definition used in this analysis suggests that the definition does not go far enough in breaking Census households into food stamp households. A comparison of eligible participants in the SIPP with those found in the Quality Control sample shows fewer one-person households and more households of three or more people in the SIPP relative to those reported in the Quality Control sample. Consistent with this finding, the SIPP households have higher income and assets and lower estimated food stamp benefits than those in the Quality Control sample. Splitting off the unrelated individuals was an intermediate assumption. It may have separated more unrelated individuals than was appropriate, but it did not split up any related household members or two-family households that could have been eligible for separate allotments.

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4. In each case, the numbers of participating households and people come from administrative data and so are unaffected by the simulation of eligibility.

5. Under the definition used in this paper that puts unrelated individuals into separate food stamp households, more single nonelderly individuals are eligible, many of whom have zero income and do not participate. As a consequence, the participation rates for individuals with zero income and for nonelderly individuals are lower under this definition for the food stamp household. The participation rate patterns for the remaining demographic and income groups are similar under both definitions.

TABLE A-1. HOUSEHOLDS AND INDIVIDUALS ELIGIBLE FOR AND PARTICIPATING IN THE FOOD STAMP PROGRAM UNDER ALTERNATIVE DEFINITIONS OF THE FOOD STAMP HOUSEHOLD, AUGUST 1984

Food Stamp Household Definition	Total (Millions)	Eligible (Millions)	QC Participation Rate (Percents)	SIPP Participation Rate (Percents)
Households				
Entire Census Household	86.8	11.1	66	45
Primary and Secondary Families Together; Unrelated Individuals Separate	91.2	12.7	58	41
Individuals				
Entire Census Household	232.2	29.1	69	53
Primary and Secondary Families Together; Unrelated Individuals Separate	232.2	30.4	66	51

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and the August 1984 Food Stamp Quality Control Sample.

NOTES: QC = Food Stamp Quality Control sample;
SIPP = Survey of Income and Program Participation.

QUALITY OF THE DATA ON INCOME

Many items are needed to estimate income eligibility. Income by source is needed so that types of income excluded from gross income are correctly omitted, and so that the earned income deduction may be estimated. The poverty threshold for the household must also be known. Finally, the data must indicate whether the household contains an elderly or disabled member, because these households generally have separate eligibility standards for income and assets.

While monthly income by source is theoretically available for each individual over the age of 15, the amount is not always accurate because it may be underreported or it may be estimated by the Census Bureau because it was not reported at all.

Underreported Income

Underreporting of income is a common problem in income surveys, as recipients may report that they did not receive income when they did, or they may report that they received a lower amount than they actually did. The overall extent to which income is underreported varies by source. Wage and salary earnings tend to be reported more fully than welfare income, for example (see Table A-2).

To put this problem in perspective, however, the overall level of income reporting is greater in the SIPP than in the Current Population Survey, the most commonly used source of household income data. Except for wages and salaries, all the major income sources are more fully reported in the SIPP than in the Current Population Survey. Nevertheless, neither the amount of underreported income nor the extent to which individual households under- or overreport income from various sources is known. Underreporting of income could lead some households to appear to be eligible for food stamps when they are not.

When the total amount of income from a particular source reported in the SIPP is less than the independent total for that source, the number of recipients is generally underestimated by a similar proportion. For example, average monthly estimates from the SIPP for the third quarter of 1984 find about 85 percent of food stamp benefits and 90 percent of food stamp recipients compared with independent estimates. Underreporting of income, therefore, appears to be more a problem of recipients claiming not to receive that type of income than it is a problem of reported recipients understating their income from that source by a small amount.

Underreporting or nonreporting of income may result in a small overestimate of the households eligible for food stamps and, therefore, a small underestimate of the participation rate. Considering first sources of unearned income, families with Supplemental Security Income (SSI) or Aid to Families with Dependent Children (AFDC) would probably appear to be eligible for food stamps

TABLE A-2. RECIPIENTS AND AMOUNTS OF SELECTED TYPES OF INCOME REPORTED IN THE SIPP AND THE CPS, AS A PERCENTAGE OF INDEPENDENT ESTIMATES

Type of Income	SIPP, Third Quarter 1984		1984 CPS
	Recipients	Amount	Amount
Wages or Salaries	n.a.	95.2	99.0
Federal Supplemental Security Income	98.3	98.6	84.9
Social Security Income	97.5	101.3	91.7
Aid to Families With Dependent Children	82.0	80.2	76.0
Unemployment Compensation	78.5	80.3	75.5
Food Stamp Allotment	90.3	84.6	n.a.
Veterans' Compensation and Pensions	89.8	76.3	63.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, Economic Characteristics of Households in the United States: Third Quarter 1984, Current Population Reports, Household Economic Studies, Series P-70, No. 5, Table D-2, p. 50 and Table D-3, p. 51; and U.S. Department of Commerce, Bureau of the Census, Money Income of Households, Families, and Persons in the United States: 1985, Current Population Reports, Consumer Income, Series P-60, No. 156, Table A-2, p. 176.

NOTES: SIPP = Survey of Income and Program Participation;
CPS = Current Population Survey;
n.a. = not available.

whether or not these income sources were reported. Nevertheless, virtually all of SSI is reported, as the SIPP finds approximately 98 percent of the number of recipients found in independent sources, and over 98 percent of the total benefits. By contrast, AFDC appears to be underreported by a large amount. Some of this underreporting occurs, however, because some respondents appear to misclassify AFDC as General Assistance income, so the total error from underreported income is not as serious as the figures for AFDC would imply.

Other underreported sources of unearned income, including Social Security, Unemployment Compensation, and Veterans' Compensation and Pensions, could cause an overestimate of the number of eligible households, because it is possible to receive amounts from these sources that exceed the poverty threshold. The total difference in the estimated number of recipients for these three programs in the SIPP compared with independent estimates is 1.7 million persons. Assuming that all of these people are incorrectly simulated in this paper to be eligible, the true number of eligible persons would fall from 30.4 million to 28.7 million, and using the Quality Control sample for the number of participants, the participation rate would rise from 66 percent to 70 percent of all eligible people.

Estimation of Missing Income

Some individuals do not answer any questions, refuse to answer a particular question, or give inconsistent responses. Nonresponse is a problem because it is not random. People with the highest nonresponse rates tend to have reported characteristics (such as education levels and occupations) that, in general, differ from population averages. The Census Bureau therefore estimates (imputes) responses for these individuals unless the entire household refuses to cooperate. These estimated values are assigned to nonrespondents from data about respondents, based on matching demographic characteristics. In most cases, an income amount is estimated only if the person reports receiving that type of income.

A problem with the Census Bureau's estimation procedure is that the imputation of particular amounts of income is based on demographic characteristics, but not on the amounts of other income received. Since eligibility for and the amount of income from means-tested public transfer payments depend on the amount of income from other sources, the current estimation procedure can generate inconsistent amounts for transfers--that is, benefits from public programs--and for other types of income for particular individuals. For example, a 1987 study of food stamp recipients from the August 1984 SIPP, prepared for the U.S. Department of Agriculture (USDA), found that many food stamp recipients had relatively high values

imputed for their income sources.6/ In particular, many households with estimated income sources had total household incomes that were too high either for food stamp eligibility or relative to the amount of food stamp benefits they reported receiving.

While the amounts of income imputed to recipients of means-tested transfers tend to be inconsistent, this does not seem to be a serious problem for the SIPP sample as a whole because the imputation procedure is designed to preserve the overall mean and variance of the reported information for the total population. A large proportion of all of the households in the SIPP--23 percent --had at least one type of income estimated, but the imputed income sources did not tend to be the major ones for the low-income population that is the focus of this analysis. Five percent of all households had earnings estimated, 3 percent had Social Security estimated, and less than 1 percent had either AFDC or SSI estimated. The average amounts imputed tended to be different from the average reported for all households, but this is because nonrespondents generally do not have characteristics that match the average for all households.

Nevertheless, the problem of inconsistent income amounts noted in the USDA Study will tend to increase the income levels of the low-income portion of the sample. This is one reason that some food stamp recipients appear to be ineligible for the program according to the SIPP. The analysis in the USDA Study isolated all households receiving food stamps that would be ineligible based on gross income--9 percent of all recipients. One-third of these households had either income or benefit levels imputed. By making some eligible households appear to be ineligible, imputing income by the Census Bureau's procedure has the opposite effect of underreporting income, which makes some ineligible households appear to be eligible.

DEDUCTIONS FROM INCOME

The amount of income deductions a household may take can crucially affect whether or not it is eligible for food stamps. In August 1984, households receiving food stamps had average total deductions of $177.

In the SIPP, the quality of information on deductions varies. The standard deduction, assigned to each household, was $89 in August 1984. The earned income deduction was 18 percent of total

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6. Mathematica Policy Research, Inc., "The Impact of Imputation Procedures on Distributional Characteristics of the Low Income Population" (Final Report prepared for the Food and Nutrition Service of the U.S. Department of Agriculture, April 15, 1987; referred to hereafter as the USDA Study.

earnings, and is also straightforward to estimate. Errors will occur only when the reporting of earnings is incorrect.

Data from the Quality Control sample show that 19 percent of recipient households take an average of $84 for the earnings deduction (see Table A-3). In the SIPP, the percentage of all households taking the earnings deduction is higher and the average amount taken is greater (see column 4 in the table), because employment rates and earnings are higher for all households than for the population eligible for or receiving food stamps.

Earnings are higher in the SIPP than in the Quality Control sample for households receiving food stamps, for several possible reasons. First, some food stamp households formed in the SIPP may include members who have earnings but are not members of the food stamp household. Second, people with earnings may have moved in with others who were receiving food stamps, but the timing of the move and the income receipt may have been reported inaccurately. Third, the income data in the SIPP is retrospective, whereas in the Quality Control sample it is prospective. Unanticipated earnings would, therefore, be likely to appear in the SIPP but not in the Quality Control sample. Fourth, the Census Bureau imputes information if people do not answer questions or give inconsistent responses. A household without earnings could in this way have earnings imputed for one of its members. Fifth, people with earnings might not report them to the caseworker. Finally, errors in responses and transcribed data are possible in both sets of data.

The deductions for dependent care expenses, excess shelter costs, and medical expenses are more difficult to estimate, and are discussed in the remainder of this section.

Dependent Care

The deduction for dependent care expenses is available to any household paying for the care of a dependent of someone who is working, looking for work, or in a work-related training program. Food Stamp QC data show that only 2 percent of recipient households paid an average of $93 for dependent care in August 1984.

In the SIPP, child care expenses were recorded in a one-time supplemental questionnaire administered between December 1984 and March 1985. The amount does not include expenses for the care of anyone 15 years or over. The information on child care expenses is available for all working mothers who paid for child care in the winter of 1984-1985. Since the supplement does not record this information for August, several problems can arise in matching child care expenses to parents employed in August. If a household left the sample between August 1984 and the next interview period, no child care expenses were recorded. Similarly, if the parent was no longer working in the next interview period, expenses for child care were not recorded. Finally, if the child care arrangement had

TABLE A-3. COMPARISON OF ACTUAL AND SIMULATED DEDUCTIONS FROM GROSS INCOME, AUGUST 1984

Type of Deduction	Food Stamp Quality Control Data	Survey of Income and Program Participation		
	Recipient Households	Recipient Households a/	Eligible Households b/	All Households c/
Percentage of Households Taking Deduction				
Standard	100	100	100	100
Earned Income	19	31	33	73
Dependent Care	2	2	3	6
Excess Shelter	69	53	53	16
Medical	3	5	9	19
Average Amount of Deduction (Dollars)				
Standard	89	89	89	89
Earned Income	84	150	98	429
Dependent Care	93	106	116	116
Excess Shelter	99	101	115	115
Medical	68	24	19	30

SOURCE: Congressional Budget Office computations from the Survey of Income and Program Participation, 1984 Panel, August 1984; and from the August 1984 Food Stamp Quality Control sample; and U.S. Department of Agriculture, Food and Nutrition Service, Characteristics of Food Stamp Households: August 1984, p. 55.

a. Households in the SIPP survey reporting that they received food stamps in August 1984.

b. Households in the SIPP survey that were estimated to be eligible for food stamps in August 1984.

c. All households in the SIPP survey.

changed, the expenses would not accurately reflect the costs of child care in August 1984. Such a change is likely, since many children are in school in the winter but are not in school in August, and they therefore require fewer hours of paid day care in the winter, when child care costs were recorded.

The amount used for the dependent care deduction in the CBO simulation was taken from the child care costs when they were available. If the mother or single father of a child under 15 worked in August 1984, weekly child care costs from the winter of 1984-1985 were multiplied by the number of weeks the person worked in August. If the parent worked in August but child care expenses were missing, child care expenses were imputed from the average expense for parents with similar incomes. (A value of zero for child care expenses did not imply a missing value.) Child care expenses did not appear to vary significantly by the number of children, so information on the number of children was not used to estimate child care expenses.

Approximately 2 percent of the food stamp recipient households in the SIPP were imputed by CBO to have deductions for dependent care expenses. The average amount was $106, very close to the average of $93 for food stamp recipients in the Quality Control sample.

Excess Shelter Costs

A deduction for excess shelter costs is available for households paying more than 50 percent of their income, after other food stamp program deductions, for shelter expenses. This is the most widely used deduction after the standard deduction--almost 70 percent of food stamp recipients in the Quality Control sample used this deduction in August 1984, and the average amount taken was $99.

Most of the information needed to impute the deductions for excess shelter costs is available in another supplement to the SIPP, collected between September 1984 and December 1984. This module records rent, mortgage payments, property taxes, and the monthly costs of gas and electricity, but some deductible shelter costs are unavailable, including expenses for water, sewerage, garbage collection, and basic telephone service. If the household moved between August and the survey date, the shelter costs recorded would not be accurate for August 1984. In particular, a shift from owning to renting the home, or vice versa, would significantly change housing costs, and the wrong set of costs would be used for individual households. Average levels would probably be affected much less, however.

Approximately 53 percent of the households receiving food stamps in the SIPP were imputed to have deductions for shelter costs, and the average amount was $101. This is also very similar to the amount recorded for recipients in the Quality Control sample.

Medical Expenses

A deduction for out-of-pocket medical expenses above $35 per month may be taken by households with elderly or disabled members. These include expenses for doctor visits, hospitalization, health insurance premiums, and prescription drugs. In August 1984, 12 percent of recipient households with an elderly person took an average medical deduction of $67, and 2 percent of recipient households with a disabled person took an average of $101.

The proportion of elderly people taking the medical deduction and the amount of the deduction seem low compared with data on actual medical expenditures by people aged 65 and over. About 55 percent of people covered by Medicare had some out-of-pocket medical expenses in August 1977, based on data from the Current Medicare Survey. In 1984, per capita out-of-pocket expenditures for the elderly on hospital, physician, and other medical care (excluding payments for nursing homes) averaged $52 per month. The per capita figure applies to all elderly persons; if it were adjusted to apply to the 55 percent with out-of-pocket expenses, then average monthly costs were $94 in 1984. The proportion using medical services and the level of expenses did not vary much across income groups.

Some medical expenses, therefore, may not be recorded by the food stamp caseworker. One reason might be that an elderly person applying for food stamps may list only regular monthly expenses. Since the average certification period was nearly 11 months for households with elderly people, some medical expenses, because they were unanticipated, may not be included in the calculation of eligibility or benefits. If the elderly person does not contact the food stamp office about the change in financial circumstances, the benefit will not be altered to reflect the unforeseen medical expenses.

Direct information about out-of-pocket medical expenses, which are deductible for the elderly and disabled, is not available in the SIPP. The SIPP does, however, indicate whether a person is covered by Medicare, Medicaid, or private health insurance, and whether the person visited a doctor during the previous year. This information can be used to estimate medical expenses. Those covered by Medicaid have essentially no out-of-pocket medical expenses. Those covered by Medicare Part A (Hospital Insurance) must pay only an annual deductible amount if they use covered medical services. Those who also elect to enroll in Medicare Part B (which covers supplementary medical expenses, or physicians' and other services) must pay an additional premium, which was $14.60 per month in 1984, but after paying the annual deductible, they pay only 20 percent of charges for physicians' services. People covered by both Medicare and private health insurance may have low out-of-pocket medical expenses, but must pay insurance premiums that are deductible when calculating food stamp eligibility and benefit levels. People covered only by private insurance must pay premiums and may also

have some other expenses, while the uninsured may have large expenses.

Because data from the Quality Control sample indicate that not all medical expenses are counted, CBO took a conservative approach to estimate this deduction, based on an estimated number of doctor visits per month, and the cost per visit. If an elderly or disabled person had 12 or more doctor visits in the previous year, it was assumed that he or she made monthly visits--otherwise, no deduction was imputed. The number of visits per month was assumed to be the number of annual visits divided by 12. A doctor visit was assumed to cost $46, which is based on the average cost of a doctor visit for people 60 years and over in August 1980, inflated to 1984 price levels using the Consumer Price Index for medical care services.

This information on the cost and number of doctor visits was combined with the individual's insurance information. Those covered by Medicaid were assigned zero expenses. People covered by Medicare Part A only were assumed to pay the full cost of doctor visits. Medicare enrollees with Part A and Part B but without Medigap insurance were assumed to have out-of-pocket expenses equal to 20 percent of the cost of the doctor visits plus the monthly insurance premium of $14.60. (It was assumed that by August the deductible had been met, and the person was making only copayments.) Those with Medigap insurance had no cost assigned for the doctor visits, but were assumed to pay a monthly premium of $33 for the private insurance. Those who were covered only by their own private insurance policy were assumed to pay 20 percent of the cost of the doctor visits plus a $42 monthly premium. (Again, it was assumed that the annual deductible had been met by August.) Those covered only by a private insurance policy through their spouse's employment were assigned 20 percent of the cost of the doctor visits and a $17 monthly premium. Finally, the uninsured were assigned the full cost of their doctor visits.

Medical expenses above $35 per month may be deducted. Therefore, 5 percent of the households receiving food stamps in the SIPP were imputed to have medical deductions, and the amount averaged $24. This average amount of deduction is well below the average recorded for recipients in the Quality Control sample, and therefore slightly underestimates eligibility and benefit levels for households with elderly or disabled members.

QUALITY OF THE DATA ON ASSETS

To estimate whether a household passes the asset test, information on the value of all liquid assets is needed. The equity and fair market values of motor vehicles must also be available, as well as information about whether the vehicle is used primarily to produce

income. It is also necessary to know the value of vacation homes, recreational vehicles, and other nonliquid assets included in the asset test. Finally, the data must indicate the number of people in the household and whether one of them is 60 years or older.

Most of the information about the value of assets that is needed for determining eligibility is available in the SIPP, including: the value of a business, balances in checking accounts and in interest-earning accounts, Individual Retirement Accounts, Keogh accounts, money market accounts, savings bonds, stocks and mutual funds, and the value of vehicles owned. Ownership of each type of asset was recorded at each interview, while information on the values of the assets was collected in a single supplementary questionnaire that was answered close to August 1984.

The quality of the asset data may be considerably lower than that of the income data in the SIPP, as the problems of underreporting and not responding are greater. It is possible, however, that the underreporting problem is actually a problem of poor coverage of wealthy people in the sample. Also, the Census Bureau estimated missing asset values based in part on total family income, so they may not be as inconsistent with the family's economic circumstances as the income estimates can be.

Underreported Assets

Overall, the SIPP reports about 75 percent of the value of all financial assets compared with estimates from the Federal Reserve Board's Flow of Funds balance sheets. Within the category of financial assets, the SIPP reports 51 percent of the value of interest-earning assets, 73 percent of corporate equities, and 80 percent of other financial assets. If liquid assets are underreported by a similar magnitude across all households, more families might seem to pass the asset test than should.

On the other hand, the underreporting may instead be concentrated in high-income households or result from these households being underrepresented in the sample. Poor coverage of owners of large amounts of wealth could contribute to the relatively low aggregate amount of assets reported in the SIPP, because holdings of wealth are concentrated. The sample design for the SIPP did not explicitly oversample high-income, high-wealth households, and therefore may underestimate total assets by underestimating the amount of wealth owned by these households. Also, to preserve confidentiality, the Census Bureau does not reveal the actual amounts of particular sources of assets and income beyond a certain maximum, and this practice of "topcoding" could significantly reduce the aggregate value of assets found in the SIPP if holdings of wealth are concentrated. Thus, if the reason for the discrepancy in aggregate asset amounts is the unrepresentative sample of owners of very large amounts of wealth or the distortion of amounts by topcoding, the large discrepancy in aggregate asset amounts could

be consistent with accurate reporting of assets among low-income households.

There is additional evidence to support the hypothesis that assets are not underreported by low-income households. The SIPP finds significant overall amounts of assets among low-income households relative to other data that record assets. Among households with annual income below $10,800 (or $900 per month), the mean value for liquid assets in the SIPP is $4,700, while it is $5,100 in the Panel Study of Income Dynamics (PSID) and $2,600 in the Survey of Consumer Finances (SCF).7/ The PSID figure could be higher than the SIPP figure because it includes some types of assets (Individual Retirement Accounts, some Keoghs, and Treasury bills) not included in the SCF or SIPP category of liquid assets. The SCF figure could be lower than the SIPP figure because the SCF sample is smaller than the SIPP sample, and while the SCF oversampled high-income households, they did not oversample low-income households.

Estimation of Missing Asset Values

About 45 percent of all households did not report or gave an inconsistent response for the value of at least one type of asset. On the other hand, the data on the ownership of assets are relatively good, with a nonresponse rate averaging only 1.4 percent. Also, over half of the households with an asset amount imputed by the Census Bureau had only one or two asset sources for which the amounts were estimated. The Census Bureau made these estimates of asset amounts by combining information from the survey about asset ownership with information on demographic characteristics and total household income during the four-month period. The Census Bureau imputed the value of assets for about 20 percent of the households that were eligible for food stamps on income criteria alone, and that owned at least one of four commonly held assets (including balances from savings accounts, checking accounts, money market deposit accounts, and Certificates of Deposit or other savings certificates).

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7. The PSID and the SCF were both conducted by the Survey Research Center at the University of Michigan. For more information on the coverage of assets in the three surveys, see Richard T. Curtin, F. Thomas Juster, and James N. Morgan, "Survey Estimates of Wealth: An Assessment of Quality" (paper prepared for the Conference on Research on Income and Wealth, Baltimore, Md., March 27 and 28, 1987, sponsored by the National Bureau of Economic Research, Inc., Cambridge, Mass.).

WORK REGISTRATION

The SIPP does not indicate whether a household is ineligible for food stamps because the household head refused to comply with the requirement for work registration. This is not a serious problem, however, because the proportion of households removed from the program in any year because they did not comply with work requirements is small, as discussed in Chapter II of this paper.

CATEGORICAL INELIGIBILITY

Since people in institutions are not represented in the SIPP, they were all excluded from CBO's analysis of eligibility. Most of them, however, are not eligible for food stamps and so their exclusion is not likely to create problems for the estimation of eligibility. Recipients of SSI in California and Wisconsin are ineligible for the Food Stamp program, and these people were eliminated from the group who would otherwise be imputed to be eligible for food stamps. Most postsecondary students are ineligible, unless they have one of several limited characteristics.8/ Those students who could be eligible were included in potential food stamp households, while those who were ineligible were dropped from the household. Some other groups, including strikers and temporary or illegal aliens, are ineligible, but since the SIPP does not contain information that can be used to identify them, no further adjustments were made for these categorically ineligible individuals or households. The size of these groups is probably small.

RECIPIENTS WHO APPEAR TO BE INELIGIBLE

Using the food stamp household definition that includes every member of the Census household except unrelated individuals, an estimated 19.5 million people were in households that received food stamps in August 1984.9/ CBO simulates about 4 million of the 19.5 million

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8. Students who are enrolled at least half time in post-high school education and who otherwise qualify are ineligible unless they are (1) disabled; (2) working at least 20 hours per week; (3) enrolled in a federally financed work-study program; (4) an AFDC recipient; (5) a parent with responsibility for the care of a dependent child under the age of six or for the care of a child up to the age of 12 for whom adequate child care is not available; or (6) under the age of 18 or over the age of 60.

9. This figure is higher than the number of reported recipients in the SIPP for that month, because the food stamp household in the CBO simulation is in some cases larger than the food stamp household reported in the SIPP.

recipients to be ineligible. Food stamp recipients may appear to be ineligible for several reasons. First, the CBO simulation and the food stamp caseworker calculate eligibility over different periods of time. The simulation uses actual August income to determine eligibility and benefit levels for August. By contrast, the caseworker uses anticipated August income to determine eligibility (and benefits in the case of new applicants or those not reporting every month), and income from the previous one or two months to determine benefits if the household is required to comply with monthly reporting. Since the incomes of some households fluctuate from month to month, this difference in the timing of the income used in calculating eligibility could explain some of the discrepancy. Some households may receive benefits early in the month, before an unanticipated rise in their incomes; in the CBO simulation, therefore, they would appear to be ineligible for the benefits they received.

Inaccurate imputations for income sources that are not reported could also lead to some discrepancy. The Census Bureau estimates missing income sources using information on personal characteristics, but not information about amounts of income received from other sources. The USDA Study discussed above found that these methods of imputing income tend to overestimate income for food stamp recipient households. If all imputed sources of income and assets were set to zero (an extreme assumption used for illustrative purposes), about 10 percent of the ineligible recipients would appear to be eligible.

Another reason for finding ineligible recipients is that the food stamp household definition used in the CBO simulation may sometimes include too many people. In some cases, the people designated as food stamp recipients are a subset of the group defined as a food stamp household by the simulation, and the extra people included by the CBO simulation add income or assets that make the entire group appear to be ineligible. The discrepancy in defining the food stamp household may account for a further 40 percent of the apparently ineligible recipients.

Finally, some food stamp recipients may in fact be ineligible. Data from the Quality Control sample indicate that about 4 percent of the recipients in August 1983 (the most recent month for which data are available) were ineligible to receive food stamps, and similar proportions had been found ineligible in previous years. This could explain a further 20 percent of the people simulated to be ineligible.

APPENDIX B

ESTIMATING PARTICIPATION RATES

This paper presents participation rates for the Food Stamp program that are constructed in a number of ways using the available data. The results differ because they are sensitive to the various methods used--whether the rate is for individuals or for households, how the food stamp household is defined, and whether the number of participants is taken from administrative records (the Food Stamp Quality Control sample) or from the income survey used to estimate the eligible population (the Survey of Income and Program Participation). This appendix discusses the rationale for each method, and assesses the validity of the results.

INDIVIDUALS OR HOUSEHOLDS

Whether the participation rate is expressed for individuals or for households depends on which group is the focus of analysis. A participation rate for individuals is useful if the interest is in the number of people who benefit from the program. It has its analog in the poverty rate, which is most often expressed as the percentage of people in families with income below the poverty line. The participation rate for individuals may similarly be expressed as the percentage of people in households eligible for food stamps who are members of participating food stamp households.

It might be useful, as an alternative, to express the participation rate in terms of households, because a household must act together as a decision-making unit in order to participate in the program. Furthermore, many people in these households, such as children, tend not to be involved in either the decision to participate or in the application process. Therefore, when the focus of analysis is on decision-making units rather than on individual recipients, household participation rates may be more appropriate.

The participation rate for individuals tends to be higher than the participation rate for households because eligible large households participate in greater proportions than do eligible small households. For example, the Congressional Budget Office simulation estimates that, using data from the Quality Control sample for participants, 66 percent of eligible persons in 58 percent of eligible households participated in the Food Stamp program in August 1984, and using data from the SIPP for participants, 51 percent of

eligible individuals in 41 percent of eligible households participated.

DEFINITION OF THE FOOD STAMP HOUSEHOLD

The Food Stamp household contains everyone living together and purchasing and preparing meals together. In 1984, the law also required that parents, children, and siblings who lived together applied together. Income surveys tend not to be based on the food stamp household, but on the group of people who are living together, called the Census household. It is possible to have more than one food stamp household within a Census household.

The SIPP indicates who in the Census household is part of a food stamp household if that group is receiving food stamps during the month in question. Otherwise, there is no information about how to subdivide the household for purposes of the Food Stamp program. Appendix A discusses this problem in more detail. To summarize that discussion, there are at least three reasonable rules to follow in order to define the food stamp household. First, the Census household may be used as the food stamp household. Second, all unrelated individuals in the household may be defined as separate food stamp households from the others. Finally, all unrelated individuals, and related people who are not parents, children, or siblings, may be defined as separate food stamp households.

Each of these definitions puts people into food stamp households automatically based on relationships rather than whether they purchase and prepare meals together, because the latter information is unavailable. Since the relationships are not perfectly correlated with sharing meals, the first and third definitions are probably too extreme. The first definition results in too few food stamp households, and therefore leads to an upper bound for the participation rate--66 percent of eligible households in August 1984 (using Quality Control sample data for participants). The second definition (splitting unrelated individuals from the rest of the Census household) is used extensively in this paper because it is an intermediate assumption. It generates a participation rate for households in August 1984 of 58 percent. The third definition was not used at all because it could not be fully implemented using the information available in the SIPP. It would have generated an even lower participation rate.

The participation rate for individuals is less sensitive to the household definition than is the participation rate for households. Using the assumption that the entire Census household is the food stamp household (and using the Quality Control sample to measure participants), the participation rate for individuals was estimated to be 69 percent in August 1984, while under the household definition that separates unrelated individuals from the rest, an

estimated 66 percent of all eligible people participated in August 1984.

ADMINISTRATIVE OR SURVEY DATA ON PARTICIPANTS

To construct a participation rate for the Food Stamp program, the number of eligible people can be obtained only by using data from an income survey--in this case, the SIPP--while the number of participants may be taken either from the SIPP or from the Quality Control sample (the administrative data). The participation rate is sensitive to which data are used to count participants, since income survey data generally indicate fewer recipients than are found in the administrative data.

The data from the Quality Control sample contain the most accurate aggregate count of recipients. While those data report that there were 20 million recipients in August 1984, the SIPP indicates 15.6 million people in eligible households received food stamps in that month, based on the food stamp household definition in this CBO simulation. Because participants should be eligible, those who reported receiving food stamps but who CBO simulates to be ineligible are also excluded from the simulated eligible group.1/

Given the alternatives of the Quality Control sample and the SIPP to estimate participants, but only the SIPP to estimate eligibility, it is not clear which combination of data yields more accurate participation rates. The SIPP shows too few eligible participants, in part because some do not report benefits they received, and in part because some recipients appear to be ineligible and therefore are not counted as recipients in CBO's analysis.

While the count of participants in the SIPP is generally lower than the count in the Quality Control sample, the eligible population may also be underestimated by being underrepresented in the SIPP, because the sample is based on the Census and weighted to Census control totals. The Census, when compared with independent demographic estimates, appears to underrepresent blacks relative to whites, and men relative to women.2/ While the size of the undercount in the Census by region and by income is not known with certainty, estimates indicate that it is greatest in central cities

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1. See Appendix A for more information about food stamp recipients simulated to be ineligible.

2. U.S. Department of Commerce, Bureau of the Census, Coverage of the National Population in the 1980 Census, by Age, Sex, and Race: Preliminary Estimates by Demographic Analysis, Current Population Reports, Special Studies, Series P-23, No. 115, Table 1, p. 6.

with large minority populations.3/ It is likely that the undercount is larger for the low-income urban population than for other income or regional groups.

To the extent that both the participants and the eligible population are consistently underestimated in the SIPP, the estimated participation rates based entirely on the SIPP may be closer to the true rate than those based on the Quality Control sample and the SIPP. To the extent that participants in the SIPP do not report benefits that they received, estimates based on the Quality Control sample and the SIPP may be closer to the true rate.

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3. Eugene Ericksen, Joseph B. Kadane, and John W. Tukey, "Adjusting the 1980 Census of Housing and Population," (Technical Report No. 401, July, 1987). Printed in Census Undercount and Feasibility of Adjusting Census Figure, Hearings before the Subcommittee on Census and Population of the House Committee on Post Office and Civil Service, 100:1 (1987), pp. 90-123.